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PHAEOCROIDES NANUS (ARROW), *PHAEOCROIDES MAPELLII* PETROVITZ AND *PHAEOCROIDES ORIENTALIS* (PETROVITZ): NOTES ON GENERIC STATUS, SYNONYMY AND TYPES; REDESCRIPTIONS (COLEOPTERA: HYBOSORIDAE)

by

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Kuijten, P. J.: *Phaeocroides nanus* (Arrow), *Phaeocroides mapellii* Petrovitz and *Phaeocroides orientalis* (Petrovitz): notes on generic status, synonymy and types; redescriptions (Coleoptera: Hybosoridae).

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Key words: Coleoptera; Hybosoridae; *Phaeocroides*; *Phaeochrous*; India; generic status; synonymy; types.

Phaeochrous nanus Arrow is transferred to *Phaeocroides* (comb. nov.); *Phaeocroides mapellii* Petrovitz is a synonym (syn. nov.). Commentaries on the types and spelling of the generic name, differences from the other Indian genera and redescriptions are given.

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INTRODUCTION

Some ten years ago I initiated a study of the South East Asian Hybosoridae with a revision of *Phaeochrous*. I excluded *Phaeochrous nanus* from that genus, but did not further deal with it. Subsequently I became convinced that it belongs in the genus *Phaeocroides*, in the sense Petrovitz interpreted this genus. The following notes and redescriptions complete the revision of the South East Asian Hybosoridae.

NOTES

1. — Arrow (1942: 924) described *Phaeochrous nanus*. Bacchus (1978: 113)

designated a lectotype and 15 paralectotypes (Pusa in Bihar and Chapra in Bengal), all in London. I removed the species from *Phaeochrous* (Kuijten, 1978: 37) but let its real generic affinities unresolved (see note 4). It does not fit into *Phaeochrous* because of, e.g., the elytral punctures being only seriate in very restricted areas, the punctures in the juxtasutural area of the elytra as large and partly as dense as in rest of elytral surface, and all claws of the ♂ having a ventro-median incision.

2. — Petrovitz (1963: 124) described *Araeotanopus orientalis*, but transferred the species to *Phaeocroides* (1972: 167). Arrow (1912: 40), followed by Petrovitz, spelled (inadvertently?) *Araeotanopus*, but Waterhouse's original spelling is *Araeotanypus* (1875: 404), used by Schmidt (1913: 34) and Allsopp (1984: 106). *Araeotanypus* (figs. 1-3) has very long fore tarsi, an angular eye-canthus, and the claws are simple in both sexes.

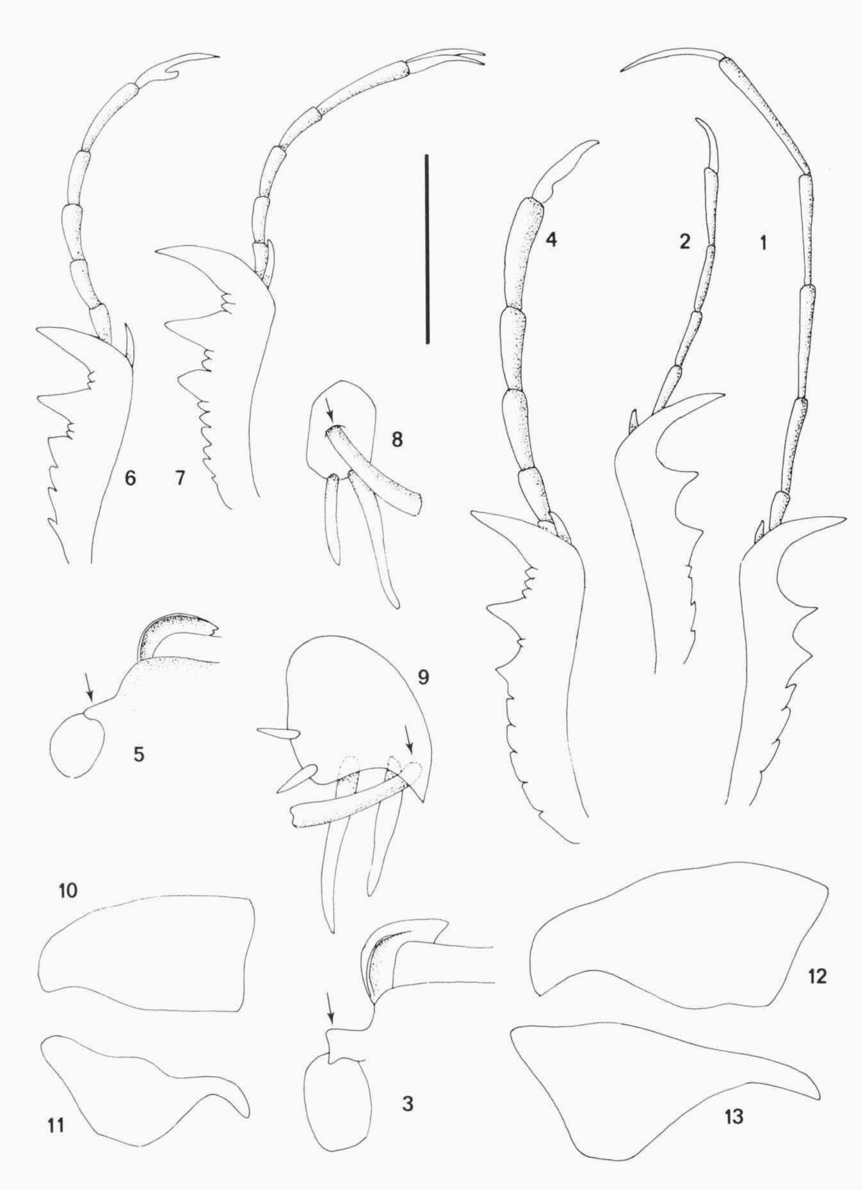
I studied the four ♀ paratypes from the Petrovitz collection (Genève), labelled "Süd Indien leg. Nathan", "Nilgiri Hills Moyar Camp 3000 ft. v. 1954", "Paratypus", "Araeotanopus orientalis m. Petrovitz", all print. The holotype and more paratypes (with same data) should be in the Frey Museum (Tutzing, B.R.D.), which is now closed and its collection is inaccessible. A ♀ (London) from Puna, Maharashtra, India, collected on *Azaridachta indica*, probably belongs to this species.

3. — Petrovitz (1972: 167) described *Phaeocroides mapellii*. I studied the three ♀ paratypes from the Petrovitz collection (Genève), the holotype ♀ and the six ♀ paratypes from the PIME collection, that were located after some inquiries in the Peabody Museum. The labels are "East Pakistan Dhanjuri (Dinajpur Dt.) v. 1963 Mapelli", "Typus", resp. "Paratypus", "Phaeocroides mapellii nov. Petrovitz", v hand, rest print; the Peabody specimens "Ex Pontificum Institutum Missionum Exterarum, Detroit, Michigan: 1984. Purch. from Carlo Brivio", print.

Unfortunately all examined types of *Phaeocroides orientalis* and *Phaeocroides mapellii* are ♀♀, reminding of the sex ratio in *Phaeocroides nanus*, 3 ♂♂/50 ♀♀ (Arrow, 1942).

4. — Comparison of the type material demonstrated that *Phaeochrous nanus, Phaeocroides orientalis* and *Phaeocroides mapellii* are congeneric, consequently *Phaeocroides nanus* is a new combination. Further it showed the synonymy of *Phaeocroides nanus* and *Phaeocroides mapellii*. Although the ♀ characters of *Phaeocroides orientalis* are not very diagnostic, it is considered here a valid species, for the moment.

5. — The African representatives of *Phaeocroides* studied, differ in several character states from the Indian ones, e.g., African ♂♂ do not have a deep ventro-median incision in all claws (fig. 4). Whether they are really congeneric



Figs. 1-3. *Araeotanypus* spec., South Africa. 1, ♂, fore tibia; 2, ♀, fore tibia; 3, ♂, head. Fig. 4. — *Phaeocroides* spec., South Africa. ♂, fore tibia. Figs. 5-11. *Phaeocroides nanus*, India, paralectotypes, 5, ♀, head; 6, ♂, fore tibia; 7, ♀, fore tibia; 8, ♀, apex of middle tibia; 9, ♀, apex of hind tibia; 10, right paramere; 11, left paramere. Figs. 12-13. *Phaeocroides* spec., South Africa. 12, right paramere; 13, left paramere. Scale line represents approximately 0,5 mm for parameres and tibial apexes, 1 mm for the other figures.

should be established by a study including all forms. For the moment the name in current use for both groups is accepted, the more so as the parameres are rather similar (figs. 10-13).

6. — Péringuey (1908: 647) established *Phaeocroides*, spelling the name without "h", apparently because of the similarity to *Phaeochrous*, which he spelled *Phaeocrous*. Péringuey used the misspelling every time he dealt with these genera in this and other work (e.g. 1902: 496-497) and as a consequence the error can not be considered an inadvertent one (Holthuis, Int. Comm. Zool. Nom., pers. comm.). Schmidt's (1913: 32) emendation into *Phaeochroides* is unjustified, and Arrow (1912), Petrovitz (1963, 1972) and Allsopp (1984) correctly maintained Péringuey's spelling.

7. — *Phaeocroides* can easily be distinguished from the other Indian Hybosorid genera as follows:

Phaeochrous (cf. Kuijten, 1978): anterior margin of clypeus evidently concave, mostly longer than 8 mm, at least several regular series of elytral punctures; *Phaeocroides*: anterior margin of clypeus at most weakly convex or concave (fig. 5), mostly shorter than 7 mm, elytral punctures only locally and incompletely seriate.

Phaeochroops (cf. Kuijten, 1981): pronotum and elytra with numerous, variably long, mostly erect setae on pronotum and elytra; *Phaeocroides* without dorsal setosity.

Hybosorus (cf. Kuijten, 1983): elytral punctures in 16-18, approximately equidistant longitudinal series, the interserial spaces with much finer and sparser punctures; *Phaeocroides*: elytral punctures with traces of seriation, all punctures virtually equally large.

REDESCRIPTIONS

Phaeocroides nanus (Arrow) (comb. nov.)
(figs. 5-11)

Phaeochrous nanus Arrow, 1942: 924 (description; type-locality Chapra, Bengal).
Phaeocroides mapellii Petrovitz, 1972: 167 (description; type-locality Dhanjuri, East Pakistan) (syn. nov.).

Colour: Head and pronotum reddish brown to yellowish brown, elytra reddish brown, often somewhat darker and more brownish than pronotum, underside and legs somewhat lighter yellowish to reddish brown.

Length: ca 6-7 mm: distance between anterior margin of labrum and a line between the eyes at their shortest distance + length of pronotum + distance

between apex of scutellum and apex of elytra.

Labrum: Broadly subtrapezoid, anterior margin rectilinear to hardly concave.

Mandibles: Strongly curved, dorso-external margin sharply carinate, dorsal surface deeply concave, apex minutely incised.

Head: Anterior margin of clypeus rectilinear, weakly concave or weakly convex, lateral margins finely carinate, weakly sinuate. Clypeus somewhat swollen in broad middle; between this swollen area and the fronto-vertex is a shallow, wide, more or less developed, sometimes medially interrupted depression, between the anterior margins of eyes. Derm of head without setae, except for a tuft of short ones on apex of eye-canthus, somewhat shining, with sparse, coarse granules on clypeus and somewhat irregularly distributed and variably widely spaced, roundish punctures everywhere else, very small and scarce on vertex.

Pronotum: Lateral margins regularly weakly curved, posterior margin weakly curved, sometimes weakly sinuate laterally. Antero-lateral angles acute, protruding forward, postero-lateral angles obtuse, strongly rounded. Lateral and basal margins finely carinate, the lateral carina externally weakly crenulate. Surface virtually evenly curved, exceptionally with very shallow, ill-delimited depressions near angles and middle of lateral margin, but always without flattened lateral areas. Derm shining, locally somewhat dull by an extremely fine microsculpture. Punctures numerous, fine, roundish, well-impressed, separated by several times their diameter, and rather evenly distributed, but often variably large impunctate areas are present too; a narrow, median, longitudinal, variably long area may have less dense and finer punctures, and may be somewhat depressed. Variably numerous very small and hardly evident (50 ×) punctures are mixed with the larger ones. At a magnification of 50 × no setosity is visible. The punctures are somewhat less numerous and shallower in ♂♂.

Scutellum: Elongately triangular, apical angle acute but rounded, lateral margins subsinuate. Surface slightly depressed in middle, somewhat dull by an extremely fine microsculpture, and with a few shallow punctures.

Elytra: Lateral margins subrectilinear and diverging in approximately anterior half, strongly curved posteriorly and converging towards the strongly rounded sutural angle. Lateral margins finely carinate, the carina crenulate externally, with a seta in most incisions; setae longest near humerus, somewhat shortening towards apex, often more or less alternately longer and shorter. Derm somewhat less shining than in pronotum, finely microsculptured. Punctures partly situated in some incomplete longitudinal series, but predominantly irregularly distributed; spaces between punctures mostly

approximately one diameter of punctures. Juxtasutural area somewhat convex, with approximately the same, more or less irregularly distributed, punctation as in rest of elytron, and locally, most evidently posteriorly, bordered by a series of punctures. No setosity visible at a magnification of 50 ×.

Pygidium: Triangular, but apex broadly rounded. Derm somewhat shining, with ill-defined, variably numerous, shallow, roundish punctures, and rather sparse, long, reclining setae.

Abdominal sternites: Derm somewhat shining, punctures scarce, widely spaced, round, shallow, mostly situated in lateral parts, many with a fine, reclining seta, often as long as or longer than half the length of sternite.

Metasternum: Disc with a fine, median, longitudinal, well-impressed groove. Derm rather shining, with a few lateral punctures, and an oblique series at some distance from the median groove, each with a long, erect seta.

Fore legs: Tibia with three lateral teeth, the apical one very long, the basal one much shorter, and with a few accessory denticles between the teeth and in basal part of tibia. Tarsal segments long and slender, 5th segment approximately as long as 3rd and 4th together, the five segments together about as long as the tibia. Claws very slender, weakly curved, approximately $^{2}/_{3}$ of length of 5th segment. Both claws deeply incised ventro-medially in ♂, simple in ♀.

Middle legs: Tibia approximately pentagonal in cross-section. Longer apical spur surpassing middle of 2nd tarsal segment, the other spur considerably shorter; both spurs slender and acuminate. Tarsal segments slender, claws as in fore legs.

Hind legs: Spurs less different, somewhat stouter. Fifth tarsal segment somewhat shorter than in middle leg, claws as in fore legs.

Tarsal articulation: In middle leg approximately situated in middle of flat apical disc, in hind leg far excentrically, and beneath level of apical disc, somewhat limiting the movability of the tarsus.

Genital apparatus: Left paramere (referring to the position in the insect) with sinuate dorsal margin; apical part much narrower than basal part, apex curved downward. In the right paramere the dorsal and ventral margin are mainly subparallel, the apex rounded.

Phaeocroides orientalis (Petrovitz)

Araeotanopus orientalis Petrovitz, 1963: 124 (description; type-locality Nilgiri Hills, South India).
Phaeocroides orientalis; Petrovitz, 1972: 167 (comb. nov.).

Only the more or less significant differences from *Phaeocroides nanus* are given.

Colour: More or less uniformly, variably dark, reddish brown; legs and underside lighter reddish to reddish brown.

Lenght: 6.5-7.5 mm.

Pronotum: Lateral margins nearly straight in posterior half, postero-lateral angles evident, obtuse. Punctures somewhat larger and deeper, subocellate to umbilicate.

Scutellum: Punctures variably numerous and dense, slightly rugulose in basal part.

Elytra: Setae of elytral margin rubbed off for the greater part in the specimens studied, but seemingly slightly shorter than in *Phaeocroides nanus*. Punctures often separated by less than one diameter, locally confluent. Juxtasutural area convex, bordered by a series of punctures, and with a single more or less regular series of punctures with the same diameter and depth as in rest of elytron.

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